

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 02, 2010 has been entered. Claims 52-54, 56 and 58 are amended. Claim 65 is new. Claims 52-54, 56-59, 63-65 are present for examination.

**All objections and rejections will be withdrawn upon acceptance of the following amendments.**

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

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Authorization for this examiner's amendment was given in a telephone interview with Attorney Christina Onufryk on September 7, 2010.

Amend claim 52 line 8-10 as follows:

"an orthogonal aminoacyl tRNA synthetase (O-RS) that preferentially aminoacylates the O-tRNA with the unnatural amino acid, wherein the O-RS comprises ~~[[an]]~~ the amino acid sequence ~~that corresponds to~~ of any one of SEQ ID NOs: 48 - 53."

In claim 53 replace part (i) reciting:

(i) an amino acid sequence set forth in any one of SEQ ID NOs: 48 - 53 and or a conservative variant[[s]] thereof, wherein the conservative variant[[s are]] is at least 98% identical to any one of SEQ ID NOs: 48 - 53, or

**with**

(i) an amino acid sequence set forth in any one of SEQ ID NOs: 48 - 53 and or a conservative variant[[s]] thereof, wherein the conservative variant[[s are]] is at least 95% identical to any one of SEQ ID NOs: 48 - 53, and comprises two or more amino acids selected from the group consisting of: glycine, serine, or alanine at a position corresponding to Tyr37; aspartate at a position corresponding to Asn126; asparagine at a position corresponding to Asp182; alanine, or valine, at a position corresponding to Phe183; and, methionine, valine, cysteine, or threonine, at a position corresponding to Leu186; or

Replace claim 63 with:

The method according to claim 53, wherein the eukaryotic cell is a yeast cell and wherein the O-tRNA and the O-RS are derived from *E. coli*.

**Conclusion:** Claims 52-54, 56-59, 63, 65 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art does not teach a method of using the ORS and O-tRNA disclosed in the instant claims

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for the production of a protein comprising the specific unnatural amino acids in a eukaryotic cell.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAGNEW H. GEBREYESUS whose telephone number is (571)272-2937. The examiner can normally be reached on 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MANJUNATH RAO can be reached on 571-272-0939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kagnew H Gebreyesus/  
Acting Examiner of Art Unit 1656  
August 31, 2010

/Manjunath N. Rao /  
Supervisory Patent Examiner, Art Unit 1656